



Ministry of  
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Ministry of  
Colleges and  
Universities

Hon. Bette Stephenson, M.D., Minister  
Harry K. Fisher, Deputy Minister

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# Skills

## Training essential Minister tells C.I.T.C. conference

Training is not a luxury; it is a necessity", The Honourable Bette Stephenson, M.D., told a conference of Community Industrial Training Committee representatives on October 18, 1980.

The conference, arranged jointly by the provincial and federal governments, was attended by more than 130 delegates. The conference was designed to allow CITC members to exchange viewpoints, ideas and problems. Representatives of federal and provincial governments explained existing programs to CITC members.

"Employers and employees are coming to realize that companies can no longer pick up qualified journeymen like the morning paper, because they just don't exist", the Minister of Education/Colleges and Universities told the delegates at the Toronto conference. "A company that does no training is committing economic suicide; a company that chooses not to train for its future, has no future."

Dr. Stephenson expressed a "heartfelt thank you" to each CITC, but encouraged them to take an even broader responsibility in three areas--development of training programs, community co-ordination and community mobilization.

She suggested that CITCs begin now to develop training programs to prepare for the effect of the New Technology--fibre optics, composites, cryogenics, new methods of metal cutting and removal, microbiology and the microprocessor.

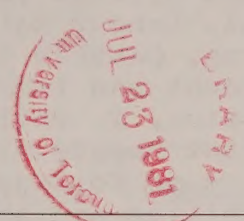
"Any one of these developments could render entire occupations obsolete; any one could create entirely new occupations. Whether Canadians are to benefit or suffer ... depends largely on how promptly and efficiently we begin to plan for the New Technology."

Dr. Stephenson encouraged CITCs to co-ordinate the community's educational resources, with particular emphasis on the creation of Co-operative Education programs in the workplace. Co-operative Education enables young people to obtain Secondary School Graduation Diploma credits and workplace experience at the same time.

"While many schools are trying to establish Co-op Ed programs", she said, "they're running into one major obstacle--finding co-op places. If CITCs could take responsibility for arranging the places, you would be providing a great service to the school, the students and yourselves."

CITCs should mobilize the community by encouraging organized labour and organized management to view training as an investment not as a cost.

"Once we clear the 'cost vs investment' hurdle, training programs will be less vulnerable to economic fluctuations. Training must continue regardless of economic downturns. Putting off training until you are financially flush is like putting off taking antibiotics until the pneumonia subsides."



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"I realize that the agenda for change I have outlined is massive. Some might say that it is too massive for volunteers serving on a CITC. I think not. You can bring about a Skills Balance. You can. If you have...the will."

Other speakers at the conference included William Fox, Director General, Labour Market and Benefit Programs, Ontario Region, Canada Employment and Immigration Commission, T. Philip Adams, Assistant Deputy Minister, Ontario Ministry of Colleges and Universities and the Honourable Lloyd Axworthy, Minister, Canada Employment and Immigration Commission.



Delegates considered the conference a success. Ninety-eight percent of the respondents to the evaluation questionnaire suggested that the conference was either excellent or satisfactory. This same percentage found the keynote speakers to be both stimulating and informative, while one hundred percent were satisfied by the facilities of the Valhalla Inn.

Seventy-seven percent felt that the clinics were either helpful or very helpful.

These figures were very gratifying to both levels of government and are sufficient grounds to plan for future conferences of this nature.

Copies of the Minister's remarks are available from the editor of SKILLS.

## SERP symposium focuses on work

Secondary schools must prepare students for work: that was the consensus of the Secondary Education Review Project Symposium, held in September.

Dr. Bernard Shapiro, Director of the Ontario Institute for Studies in Education, in his summary of the Symposium, stated: "Of greatest interest to participants were those goals relating to basic skills, multi-culturalism, and--more than anything else--goals, relating to the expectations of the world of work." (Editor's emphasis)

More than 250 secondary and post-secondary teachers, students, parents and administrators attended the Symposium, held in Toronto on September 15-17. The Symposium was sponsored by the Secondary Education Review Project (SERP) to discuss the major issues which confront the secondary education system.



SERP was established by The Honourable Bette Stephenson, M.D. to:

- focus on the needs and goals of secondary students commensurate with their levels of ability;
- set the criteria for a program that prepares students for the futures envisaged by society;



- assess the goals of education and to realign the secondary school program to ensure that the goals and program are compatible and viable;
- redesign the program to better prepare students for the world of work;
- consider the structure of the intermediate and senior divisions with respect to the characteristics of adolescents and the problem of mobility of students within and to or from the province;
- assess such features as the credit system, required subjects policy, diploma requirements;
- devise means of providing appropriate educational programs that include courses at various levels of difficulty to meet the needs of students with different interests and aptitudes;
- respond to concerns regarding standards and discipline in secondary schools.

The Project consists of four committees--Steering, Evaluation, Design and Reaction. The SERP Secretariat is headed by Duncan Green, Director of the Toronto Board of Education, who has been seconded to the Ministry.

"The Symposium was extremely successful", Mr. Green said. "It brought together the diverse individuals concerned with secondary education and allowed them to express themselves, as they never had before.

"Many of the participants left with their conceptions of what secondary education should be, perhaps, challenged and, certainly broadened."

Copies of the major Symposium papers are available from the Editor of SKILLS.

The SERP Secretariat welcomes submission from Community Industrial Training Committees, particularly on ways to smooth the transition from secondary school to

the workplace. Submissions may be forwarded now and/or after SERP has issued its discussion document on the design of the secondary education system for the 21st Century.

You may contact SERP at:

Ministry of Education  
Mowat Block, 17th Floor  
Queen's Park  
Toronto  
M7A 1L2

## Program Profile: Modular Training

Ontario's modular training system was established in 1968--the first of its kind in North America.

Modular training is a performance-based system which is delivered in incremental steps, with accreditation for trainees provided at every step. It is administered by the Apprenticeship Branch. The modular system is supported by an administrative system which records, on computer, a coded list of all available modules and established modular training programs, as well as a specific accreditation record for individual trainees.

In general, each new program can build on existing modules; however, many new modular programs require the development of additional modules representing skills not previously analyzed. The development and approval of modules and modular training packages are continuing activities of the Ministry of Colleges and Universities for such diverse client groups as government, private industry, colleges of applied arts and technology (CAATs), secondary schools and other training agencies. Individual training modules are developed through analysis of required job functions and are comprised of a series of homogeneous tasks representing a specific portion of the occupation. In many instances, the tasks identified are common to several occupations within a single industry or across several industries. As a result of the function analysis, training profiles are developed and programs established which are specifically



directed to the needs of the industry or company for which the programs have been designed. Some major activities are highlighted below.

#### ● Stationary Engineers

The modular program, introduced in 1972 for the training of Stationary Engineers, has recently been reviewed and revised. The new training profile, developed for Stationary Engineers in a specific learning objective format, comprises 26 modules in four volumes--one volume for each class. More than 3,600 Stationary Engineers are upgrading their skills under the program--approximately 60% through home study and the others at 19 CAATs.

#### ● Major Appliance Servicing

A very active modular program has been in operation for some time in the Major Appliance Servicing (MAS) industry to train service technicians in the installation, servicing and repair of laundry equipment, refrigerators, air conditioning units and microwave ovens. Having produced quality technicians in Ontario for a number of years, the program has so impressed its sponsor, The Canadian Electronics and Appliance Service Association, that similar initiatives in other provinces are now being actively considered. The Linkage program established in the secondary schools, also offers the MAS program of study.

#### ● The Petrochemical Industry

A modular training program was developed to improve the skills of mechanical maintenance workers in such occupations as millwright, instrument mechanic, pipefitter and plant electrician. This program was developed in 1971, at the request of a Sarnia-area petrochemical company. The program has been well received by the industry; a total of 16 major petrochemical companies are involved in 73

modular training programs for their mechanical maintenance work force.

#### ● The Mining Industry

Significant initiatives are being pursued in the mining industry in the development of training modules for mill process operators and underground hard-rock miners. The Ministry has undertaken the development of training modules for a major segment of the mill process operator occupation in co-operation with industrial officials. A bank of about 200 modules has been developed covering the specific skill requirements of grinder, dryer, filter and flotation operators.

A training package for underground hard-rock miners--including a Common Core of required skills and 36 specialty mining skills--will provide guidelines for structured training in the industry and will enable workers to qualify for Ministry certification as Underground Hard-Rock Miners.

The province's modular training program has been experiencing expansion during the past several years. More than 1,500 training modules have been approved, validated and entered into the Ministry's computer library. During the first six months of 1980, 5,000 new trainees registered under the program.

Modular training has gained industry acceptance as a productive, effective and appropriate approach to training in a wide range of occupational areas.



## Grain trade millwright program begins

Canada's first recognized Grain Trade Industrial Millwrights will graduate in Thunder Bay in 1982.

They are being trained under a joint federal-provincial Employer-Sponsored Training program. About 160 employees of seven firms will graduate in 1982 with the special skills needed to install, maintain and repair complex drying, cleaning and transportation equipment within the Lakehead's grain elevators.

Ron Gorst, assistant manager of the Saskatchewan Wheat Pool's Thunder Bay elevators, says the training program, developed by the elevator operators, may well set a national standard for the entire industry. He said the federal government is considering its use elsewhere in the grain trade.

The millwright program was developed by the Grain Trade Industrial Training Committee, with the co-operation of the two unions representing the employees. The committee, chaired by Mr. Gorst, consists of the seven Lakehead grain companies--Canada Malting Co. Ltd., Cargill Grain Co. Ltd., Manitoba Pool Elevators, Parrish & Heimbecker Ltd., Richardson Terminals Ltd., Saskatchewan Wheat Pool and United Grain Growers Ltd. The Committee is one of about 50 Community Industrial Training Committees throughout the province.

Planning for the program began about four years ago when the industry forecast that their existing millwrights would need improved skills to meet three challenges. The amount of grain being handled will likely increase from its present level of 15,000,000 tonnes a year to about 22,000,000 tonnes by 1985. The lengthening of the shipping season from seven months to 10 months requires year-round maintenance. The introduction of dust control and increasingly complex equipment has placed additional demands on the millwrights.

"The companies decided in 1976 that we would need better trained millwrights, and chose to upgrade our existing millwrights rather than hiring new employees", Mr. Gorst said. "We felt that the existing millwright staff was our best resource."

However, none of the training programs available at the time met the industry's needs. A large part of the grain millwright's time is spent fabricating duct work and maintaining the systems to process and transport the grain throughout the elevators.

Then, the industry heard about the Employer Sponsored Training Program. "The industry got very excited about EST because it provided the flexibility to train to meet our unique needs," Mr. Gorst said.

Seven companies then formed an Industrial Training Committee, developed a curriculum and arranged for government financial assistance. A Letter of Intent between the Committee, the Ontario Ministry of Colleges and Universities and the Canada Employment and Immigration Commission, was signed in November, 1979.

The program is being offered to all 130 millwrights employed by the seven companies; academic upgrading, particularly in English and mathematics, is also made available. In addition, new recruits from operations staff, without millwrighting experience, are enrolled.

The training began early this year. Trainees go through three levels of training: Basic, Intermediate and Advanced. Each year, trainees attend a rigorous four-week in-class session, followed by on-the-job application and evaluation. After they complete successfully the Basic, Intermediate and Advanced sessions, they will be recognized as Grain Trade Industrial Millwrights.



To date, the program has been very successful, largely because of the co-operation of the unions involved, Lodge 650 of the Brotherhood of Railway, Airline and Steamship Clerks and Local 281 of United Brewery, Flour, Cereal, Soft Drink and Distillery Workers.

"The program was discussed with the unions right from the start", Mr. Gorst explained. "In fact, their active support has been vital to the program's success.

"Trainees receive their normal salaries during the training period and their wage rates are guaranteed, so they have nothing to lose and everything to gain."

Union co-operation has been one key to the program; another is the industry-created training profile.

"The Grain Trade Industrial Millwright training profile was developed by industry, with the valuable assistance of Confederation College of Applied Arts and Technology", Mr. Gorst said. "Although it parallels the general Industrial Millwright program in many respects, it has been modified to meet our needs exactly; as those needs change, millwrights can be given refresher courses."

By 1982, all existing millwrights will have reached the industry standards. From then on, the CITC will train about 12 millwrights a year to take care of retirements and expansion.

"In Thunder Bay, we've proved Employer Sponsored Training works. Other firms with grain elevators can follow this example," Mr. Gorst said. "In fact, any industry or any community that faces a shortage of skilled employees can use EST to meet their needs."

## Resources

### Ministry of Colleges and Universities

#### ● "Yes I Can"

This 17-minute, 16 m.m. colour film is designed to encourage women to obtain positions in traditionally male occupations. The film draws on the real experiences of five women in skilled occupations--a carpenter, truck driver, machinist, welder and electronics technician. The film points out that women make up 69% of the total work force (largely in low-paying jobs) and that most women will be in the labour force for 25 to 30 years. The film will be of interest to women seeking career advancement, students making career decisions and employer's concerned about full utilization of their employees.

"Yes I Can" can be borrowed free of charge from:

Modern Talking Pictures Services  
143 Sparks Avenue  
Willowdale, Ontario  
M2H 2S5  
(416) 498-7290

#### ● "The Skills Balance" (Modules 1 and 2)

The Skills Balance/Module #1 is a seven-minute description of the causes, nature and effects of the Skills Imbalance. It is in a pulsated slide-tape format. Module #2, also a seven-minute presentation in a pulsated slide-tape format, deals with the role of employers and employees in resolving the Skills Imbalance. Used together, the two modules could assist CITCs to stimulate support for CITC programs. They can be used in conjunction with the brochure "Beat the Skills Shortage", described below.

Both modules and a projector can be borrowed from the Editor of SKILLS.



## ● "Beat the Skills Shortage"

This brochure was developed to assist CITCs to explain their role to employers and employees. It sets out the four major roles of a CITCs and identifies some of the support services the Ministry can provide.

"Beat the Skills Shortage" can be ordered from the Editor of SKILLS.

## ● SERP

The Secondary Education Review Project (SERP) is an intensive one-year study of Ontario's secondary school system. With continual changes taking place in our modern society our educational system needs to assess itself. This study, initiated by the Ministry of Education, is designed to assess three basic questions about secondary education in Ontario: "What do we want?", "Why do we want it?" and "How are we going to do it?"

A pamphlet about SERP's objectives and plans, in both French and English, is available free of charge from the Editor of SKILLS.

## Students concerned about careers

Secondary school students are concerned about their careers, but feel unprepared when they make important career decisions, research shows.

A review of a number of recent studies indicates that:

- Students become disenchanted with education as years go by. About 80% of students under 13 years of age rate education "excellent or good", while 45% of the respondents over 17 years of age rate it "excellent or good". (Adams, Table 7) (see Bibliography).

- Students are somewhat more critical of education than either their parents or teachers. While 45% of senior students rate school "excellent or good", 58% of parents and 54% of secondary school teachers rate it "excellent or good". (Adams, Table 7)
- There is a gap between student and teacher perception of student competence in the basic skill areas--reading speed, grammar, written expression, mathematical problem-solving, reading comprehension, oral expression, handwriting and basic arithmetic. Senior students feel they are competent in five skill areas, while senior teachers say they are competent in only two areas. (Adams, Table 21)
- A majority of students say mathematics and English are useful in the workplace. Among other subjects--technical, business, secretarial, science, geography, physical education and the arts--technical subjects are the most useful. (Warren, Table 2)
- Students believe that greater emphasis should be placed on teaching occupational skills, while teachers believe less emphasis should be placed on this topic. (Adams, Table 12)
- Further, students feel that the transmission of "knowledge and skills that will be useful for a future occupation" is the number one priority of the school system, equal in importance to learning the "value of being a good, well-adjusted normal citizen". (Adams, Table 13)
- Students may begin thinking about careers before they have entered secondary school. In fact, about 45% of students started thinking about careers in or before Grade 8. (Harvey, Table 27)



- When students begin seeking information, they used parents as their primary source. Guidance counsellors are the second most-used source. (Harvey, Table 37)
- Almost 80% feel that they did not have all necessary information when career decisions were made. (Harvey Table 28)
- They feel unprepared for work; 63% disagreed with the statement "Students today are adequately prepared to go out into the working world." (Adams, Table 15)
- Students learned about skills training while on the job, rather than at school. (Harvey II, Table 7.2) The primary sources of information were:

Work	28.2
Advertising	15.2
School	16.4
Friends	14.5
Other	15.7

- Academic students (52%) are much more likely to achieve grades of over 70% than are technical students (23%). (Harvey II, Table 3.2)
- Of all Grade 12 graduates surveyed, 50.9% did not complete post-secondary training during the six year follow-up period. (Harvey II, Table 1.2)

Adams, Michael, et al.  
Educational Perspectives, A Survey of 10,000 Ontario Students, Teachers and Parents. Toronto: Ministry of Education, Ontario 1976.

Harvey, E.B. et al. An Evaluation of the Student Guidance Information Service. Toronto: Ministry of Education, Ontario, 1975.

Harvey, E.B. Barriers to Employer Sponsored Training in Ontario. Toronto: Ministry of Education/Colleges and Universities, Ontario, 1979. (Harvey II)

Warren, W.K. and King A.J.C. School-To-Work Study. Toronto: OSSTF, 1979.

## Hospitality industry surveyed

A survey of 3,000 employers in the hospitality industry is under way to identify manpower needs in this vital industry.

The survey is being conducted by the Ministry of Education and Colleges and Universities, the Ministry of Industry and Tourism and the Ontario Hospitality Institute. It will determine:

- manpower needs in managerial and skilled worker categories
- the education of the surveyed employers' existing employees
- employers' opinions of the types of training necessary to aid the development of the industry.

For further information, contact Jim Johnson, Project Manager, (416) 965-7026

SKILLS is published by the Manpower Training Branch. Your letters and articles are most welcome; they should be addressed to the Editor. If you know of anyone who you feel would enjoy receiving SKILLS, please notify the Editor, at the NEW address:

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